August 19, 2005

Howard B. Bernstein
RPS Program Manager
Massachusetts Division of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

Sent via email to doer.rps@state.ma.us

RE: Comments on Notice of Inquiry/RPS Regulation Revisions

Dear Mr. Bernstein:

Thank you for providing Clean Power Now the opportunity to comment on the Notice of Intent (NOI) issued by the Division of Energy Resources (the Division) and the Department of Environmental Protection (DEP) on July 1, 2005.

Clean Power Now is a non-profit volunteer organization with over 5,000 members that supports viable renewable energy projects. The Massachusetts Renewable Portfolio Standard (RPS) is an effective means of increasing the economic viability of new renewable energy projects, and as such is of great interest to us.

We are greatly concerned that some provisions of the NOI would create economic incentive for existing biomass plants to continue operating while diminishing the incentive for new renewable development. While we certainly support the combustion of biomass fuels over fossil fuels, that support should not put clean renewable sources, such as wind and solar, at risk.

The RPS statute (M.G.L. §25A, sec. 11F) is clearly intended to promote the development of new renewable energy generating sources. A changing regulatory framework can have a significant negative impact on investor confidence in new renewable energy development. We appreciate the Division's thoughtful and deliberate consideration of any changes, and are pleased to submit the following specific comments.

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Advanced Biomass Power Conversion Technologies

In the NOI, the Division asked for input on what should constitute advanced biomass power conversion technologies as referenced in the RPS statute. In the RPS regulations, pile-burn and stoker technologies are specifically excluded from consideration as advanced power conversion technologies.[1] Clean Power Now believes that the exclusion of these technologies is appropriate and in accordance with the RPS statute.

The power conversion process in a biomass facility using pre-1997 technology begins in the furnace of the boiler where the biomass fuel is combusted, and the potential energy in the fuel is converted to heat energy in the furnace. The heat energy is then transferred to the boiler water through the boiler tubes, converting the water to steam. The kinetic energy in the steam is converted in the turbine to rotational energy, which drives the generator. The generator rotor forces an electro-magnetic field past the stator coils, creating alternating-current electricity. In order for any technology to be considered advanced power conversion technology under the statute, it must be part of this power conversion cycle.

In the NOI, the Division specifically referred to Regenerative Selective Catalytic Reduction equipment as a potential means of retrofitting an existing biomass plant. While Clean Power Now recognizes the air emission benefits from this technology and applauds its use on biomass facilities, this cannot qualify as advanced power conversion technology since the equipment is not part of the power conversion process.

In an advisory ruling issued earlier this year[2] (footnote to Hemphill decision), the Division determined that retro-fitting an existing over fire air (OFA) system qualified as advanced. Clean Power Now believes that decision may have been in error. OFA systems have been in use on solid fuel furnaces for well over 2 decades. The proposed retrofit consisted of a new OFA system using existing nozzle locations and changing the ratio of under grate air to over fire air. While this may certainly result in improved combustion on and above the existing grate, it is not an advancement of the power conversion technology. In the interests of maintaining the integrity of the RPS system, Clean Power Now does not in any way suggest that this decision be re-visited. However, it is imperative that a distinction be maintained between "advancements" and "improvements" in power conversion technologies.

To keep this distinction clear, Clean Power Now strongly urges the Department to adopt the recommendation made by the Conservation Law Foundation (CLF) and the Union of Concerned Scientists (UCS) that the definition of advanced power conversion technologies be limited to fluidized bed and gasification, with other emerging technologies considered on a case-by-case basis. The specific exclusion of pile-burn and stoker technologies should remain.

[1] This provision is in accordance with the report from the Joint Committee on Energy sent to Commissioner O'Connor by the joint chairs, Representative John Binienda and Senator Susan Fargo, on March 6, 2002. http://www.mass.gov/doer/rps/report.htm

[2] Advisory Ruling for Hemphill Power and Light, January 7, 2005. http://www.mass.gov/doer/rps/hemphill.pdf

Net Heat Rate
As discussed extensively at the stakeholder conference, net heat rate is not a suitable measure of a biomass facility's technological advancement. This is due to the difficulty of consistently determining the higher heating value (HHV) of the incoming biomass fuel. Also, this is a difficult standard to apply to co-generation facilities. Clean Power Now recommends that advanced power conversion technology be defined as discussed above, eliminating the need for heat rate to be part of the definition.

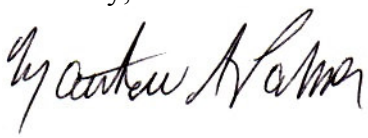
Re-Powering
Clean Power Now supports the recommendations made by CLF and UCS that an old biomass facility can be considered new and therefore eligible only after a complete re-powering of the facility. Re-powering should include upgrading the facility to advanced technology and meet the low emission standard discussed below. The combustion unit (sometimes referred to as the "prime mover") must be replaced with new. Upon completion of the re-powering, 80% of the total value of the asset will be the new capital investment. In order to maintain the integrity of the incentive for new renewable generation sources, Clean Power Now supports the recommendations for placing a cap on the amount of existing biomass capacity that can be qualified as new by re-powering and a commensurate increase in the RPS target.

Low Emission
Clean Power Now supports the use of Best Available Control Technology (BACT) for determining whether a new or re-powered biomass facility meets the statutory low emission standard.

Construction and Demolition (C&D) Waste
Clean Power Now does not believe that C&D waste is an appropriate renewable fuel. We believe that these materials should be reclaimed and re-used. Ultimately, Massachusetts should follow the lead of Illinois and specifically prohibit C&D from being an RPS-qualified energy source. However, recognizing that reclamation is not always a viable option, Clean Power Now believes that only clean wood, with no paint or preservatives could be considered an eligible fuel. If the Division were to adopt such a provision, Clean Power Now strongly urges the Division to put a limit on the amount of C&D material an eligible biomass facility can combust.

Thank you for considering these comments.

Sincerely,



Matthew A. Palmer, PE
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